

# SEASONAL INFLUENZA VACCINATION: CHILDREN OR OTHER TARGET GROUPS? PART II: COST-EFFECTIVENESS ANALYSIS – SUPPLEMENT 1.3





# SEASONAL INFLUENZA VACCINATION: PRIORITIZING CHILDREN OR OTHER TARGET GROUPS?

## PART II: COST-EFFECTIVENESS ANALYSIS – SUPPLEMENT 1.3

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## COLOPHON

Title:

Seasonal influenza vaccination: prioritizing children or other target groups?

Part II: cost-effectiveness analysis – Supplement 1.3.

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Acknowledgements:

Yannick Vandendijck acknowledges support from a doctoral grant of the Universiteit Hasselt (BOF11D04FAEC). Lander Willem acknowledges support from an interdisciplinary doctoral grant of the Universiteit Antwerpen (ID-BOF25759), Nele Goeyvaerts is beneficiary of a postdoctoral grant from the AXA Research Fund, Adriaan Blommaert acknowledges support from the Universiteit Antwerpen concerted research action number 23405 (BOF-GOA), Joke Bilcke is supported by a postdoctoral grant from the Fund for Scientific Research Flanders (FWO), Niel Hens acknowledges support from the Universiteit Antwerpen scientific chair in Evidence-Based Vaccinology, financed in 2009–2013 by a gift from Pfizer. Support from the IAP Research Network P7/06 of the Belgian State (Belgian Science Policy) is gratefully acknowledged.

For the simulations we used the infrastructure of the VSC - Flemish Supercomputer Center, funded by the Hercules foundation and the Flemish Government - department EWI. We thank Geert Jan Bex (Universiteit Hasselt and KULeuven) for support with using the VSC cluster, as well as Frank Van Reeth (Expertise Centre for Digital Media, Universiteit Hasselt).

We are indebted to the following persons for their help mainly through general advice, data delivery, data interpretation or review.

We thank Anthony Newall (University of New South Wales, Sydney, Australia) and Mark Jit (Health Protection Agency, The UK) for support in conducting systematic reviews of economic evaluations.

We are grateful to Samuel Coenen and Niels Adriaenssens (Centre for General Practice & Laboratory of Medical Microbiology, Vaccine & Infectious Disease Institute, University of Antwerp), Curt Brugman (Julius Center for Health Science and Primary Care, UMC Utrecht, the Netherlands), Pierre Van Damme (Centre for the Evaluation



of Vaccination, Vaccine & Infectious Disease Institute, University of Antwerp) and Herman Goossens (Laboratory of Medical Microbiology, Vaccine & Infectious Disease Institute, University of Antwerp, and coordinator of Genomics to combat Resistance against Antibiotics in Community-acquired LRTI in Europe – GRACE, DG Research, 2005) for helping with interpreting reviews and the medication data we collected through our survey on influenza like illness, and sharing antibiotics data of GRACE.

We also thank marketing research company “DayOne” (in particular Koen Van Bulck) for conducting the 2011-2012 influenza season survey on influenza like illness in the general population.

This study was made possible thanks to the collaboration of the Institut Scientifique de Santé Publique/Wetenschappelijk Instituut Volksgezondheid (ISP – WIV) that provided the sentinel laboratory and influenza data, the Reference Laboratory for *Streptococcus pneumoniae* at the UZ Leuven, the Technical Cell for the Minimal Clinical Data, the Federation Wallonia-Brussels, the Vlaams Agentschap Zorg en Gezondheid and the Observatorium voor Gezondheid en Welzijn van Brussel-Hoofdstad – Observatoire de la Santé et du Social de Bruxelles-Capitale for the data on the causes of death. We particularly thank Jan Verhaegen and Jozef Vandeven (UZ Leuven), Françoise Wuillaume, Viviane van Casteren, Geneviève Ducoffre and Isabelle Thomas (ISP – WIV), Déogratias Mazina and Murielle Deguerry (Observatoire de la Santé et du Social de Bruxelles-Capitale – Observatorium voor Gezondheid en Welzijn van Brussel-Hoofdstad), Erik Hendrickx, Anne Konga and Heidi Cloots (Vlaams Agentschap Zorg en Gezondheid), Virginie Charlier (Fédération Wallonie-Bruxelles), Yves Parmentier (INAMI – RIZIV), France Vrijens, Jo Robays, Carl Devos, Stephan Devriese and Frank Hulstaert (KCE). We also thank Esther Kissling (EpiConcept) and Bianca Cox (University Hasselt) for advices on STATA programming. We also thank Kristel De Gauquier (KCE) for continuous support and management throughout the study.

External Validators:

Daniel Brasseur (AFMPS – FAGG, European Medicines Agency and Hôpital Universitaire des Enfants Reine Fabiola), Marc Van Ranst (KULeuven, Hoge Gezondheidsraad – Conseil Supérieur de la Santé), Emilia Vynnycky (London School of Tropical Medicine and Hygiene).

Other reported interests:

Marc Van Ranst (MVR) has acted as principal investigator or consultant for projects for which the University of Leuven received grants and funds for research. These grants and funds were directly paid to the University and MVR received no personal remuneration for this work. Yves Van Laethem received funds for research and consultancy fees and fees to speak at conferences from companies involved in influenza vaccines but these activities were not related to influenza, and these fees were paid directly to the Research Unit of his hospital. Anne Vergison received consultancy fees from companies involved in pneumococcal vaccines to participate to scientific advisory boards and to speak at conferences on pneumococcal vaccination. These fees were paid directly to her hospital. Beatrice Swennen received a travel grant to participate at a scientific conference. Patrick Tréfois collaborates to the Vax Info journal which received unrestricted educational grant from GSK.

Layout:

Sophie Vaes

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Publication date:

12 July 2013

Domain:

Health Technology Assessment (HTA)

MeSH:

Influenza Vaccines; Influenza, Human; Pregnancy; Comorbidity; Health Personnel; Infant; Child, Preschool; Child; Adolescent; Young Adult; Middle Aged; Aged; Cost-Benefit Analysis; Costs and Cost Analysis.

NLM Classification:

WC 515

Language:

English

Format:

Adobe® PDF™ (A4)

Legal depot:

D/2012/10.273/46

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How to refer to this document ?

Beutels P, Vandendijck Y, Willem L, Goeyvaerts N, Blommaert A, van Kerckhove K, Bilcke J, Hanquet G, Neels P, Thiry N, Liesenborgs J, Hens N. Seasonal influenza vaccination: prioritizing children or other target groups? Part II: cost-effectiveness analysis – Supplement 1.3 Health Technology Assessment (HTA) Brussels: Belgian Health Care Knowledge Centre (KCE). 2013. KCE Reports 204S1.3. D/2013/10.273/46.

This document is available on the website of the Belgian Health Care Knowledge Centre



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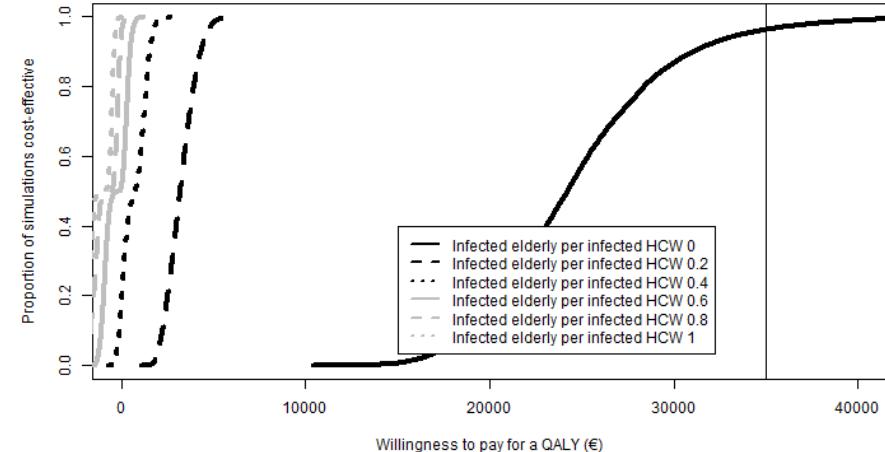
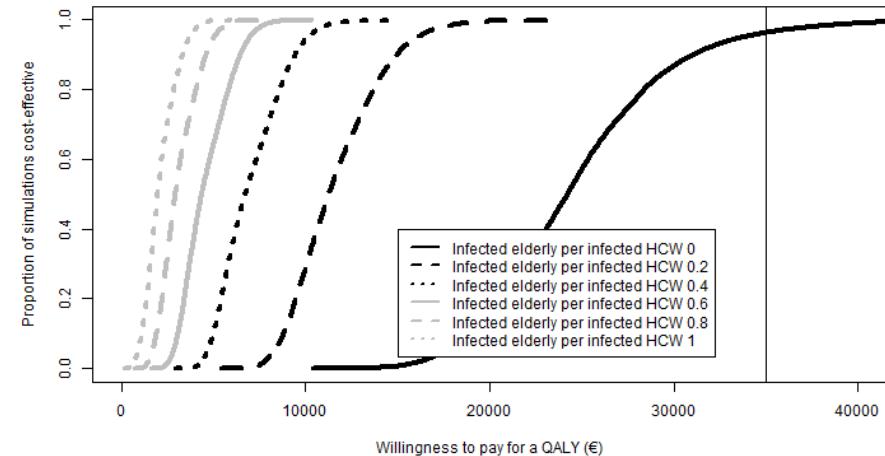
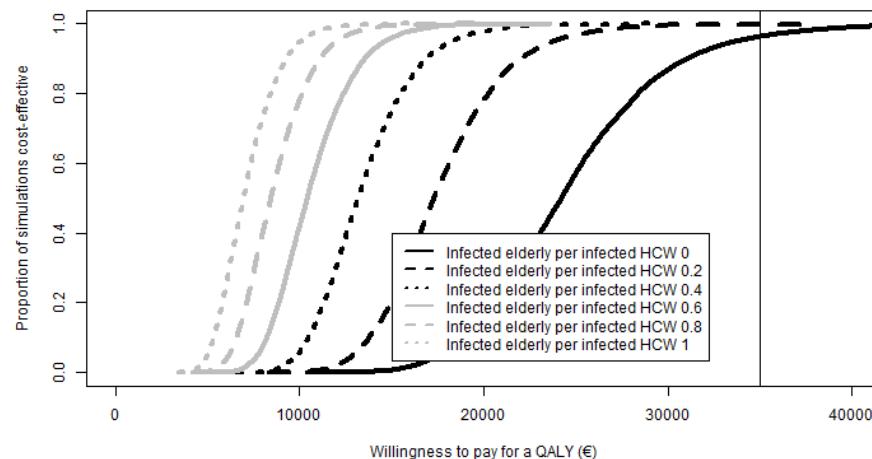
## 5. STATIC MODEL: ADDITIONAL RESULTS

### 5.1. HCW without marginal administration costs

#### 5.1.1. HCW aged 20-29 years

The figure below shows the CEACs for varying the numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker. These figures show that vaccinating HCWs aged 20-29 years, even in the absence of secondary infections can be considered cost-effective.

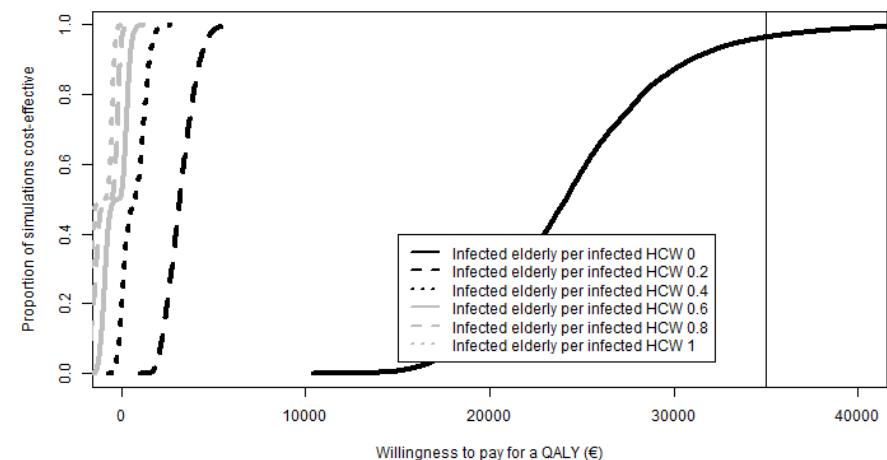
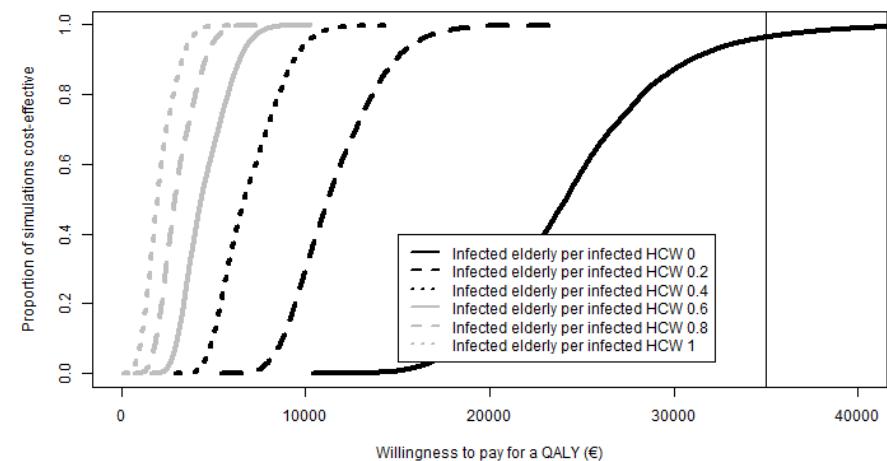
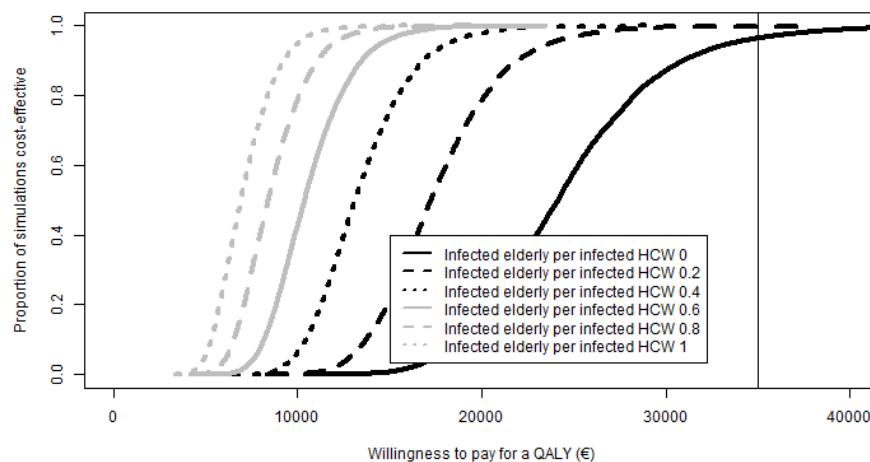
**Figure 1 – CEACs for vaccinating HCWs aged 20-29 years at no marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74 and 75+ years**



### **5.1.2. HCW aged 30-49 years**

The figure below shows the CEACs for varying the numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker. These figures show that vaccinating HCWs aged 30-49 years, even in the absence of secondary infections can be considered cost-effective.

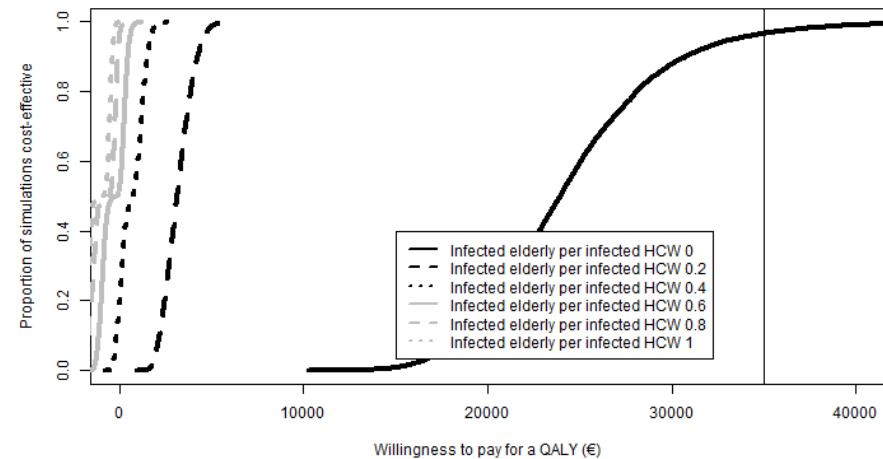
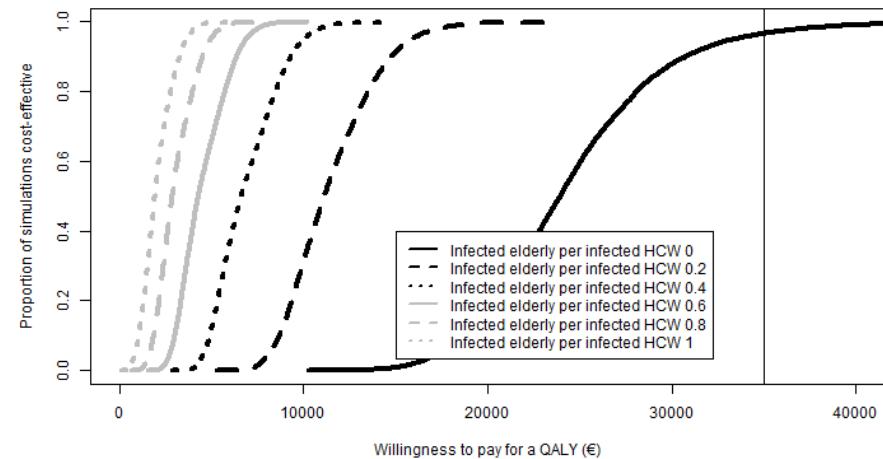
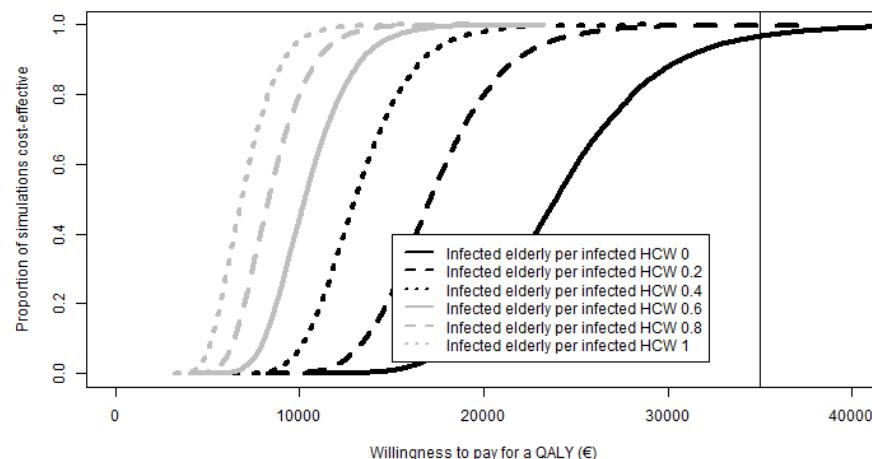
**Figure 2 – CEACs for vaccinating HCWs aged 30-49 years at no marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74 and 75+ years**



### 5.1.3. HCW aged 50-65 years

The figure below shows the CEACs for varying the numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker. These figures show that vaccinating HCWs aged 50-65 years, even in the absence of secondary infections can be considered cost-effective.

**Figure 3 – CEACs for vaccinating HCWs aged 50-65 years at no marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74 and 75+ years**



**Table 1 – Cost-effectiveness output table HCW 20-65 years of age, no administration costs, size target group 239 740 active HCW assumed distributed as the general population**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	709674	709130	673991	740968	709674	709130	673991	740968	709674	709130	673991	740968
	Incremental QALYs	29.43	29.93	19.79	42.64	29.43	29.93	19.79	42.64	29.43	29.93	19.79	42.64
	ICER	24102	24594	16420	36354	24102	24594	16420	36354	24102	24594	16420	36354
0.2	hospitalisations prevented - elderly	2.14	2.41	1.48	3.58	10.30	10.79	6.36	16.50	42.49	42.96	26.73	62.15
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.12	0.19	0.09	0.31	1.57	1.46	0.82	2.23	12.44	12.67	9.74	16.04
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	674930	674176	631521	712903	631367	630339	573373	680817	444303	436732	299515	557228
	Incremental QALYs	39.10	39.55	26.88	54.14	56.43	56.65	37.95	77.77	137.54	138.79	108.56	173.72
	ICER	17202	17603	12123	25517	11200	11562	7782	17072	3171	3215	1871	4818
0.4	hospitalisations prevented - elderly	4.27	4.82	2.95	7.16	20.59	21.58	12.71	33.00	84.97	85.91	53.46	124.29
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.25	0.38	0.19	0.63	3.14	2.93	1.63	4.46	24.88	25.35	19.47	32.09
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	640327	639222	588577	685375	553694	551548	466310	624895	188270	164335	-84870	379334
	Incremental QALYs	48.81	49.16	33.47	66.82	83.20	83.37	54.69	115.85	244.94	247.64	193.52	309.52
	ICER	13115	13429	9224	19513	6663	6965	4370	10670	731	690	-311	1822



<b>0.6</b>	hospitalisations prevented - elderly	6.41	7.23	4.43	10.74	30.89	32.36	19.07	49.50	127.46	128.87	80.19	186.44
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.37	0.58	0.28	0.94	4.71	4.39	2.45	6.68	37.32	38.02	29.21	48.13
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	605472	604268	544956	657906	476768	472757	357976	569951	-6748	-108061	-469843	203084
	Incremental QALYs	58.44	58.78	39.74	79.95	108.88	110.09	71.30	154.06	352.10	356.50	278.35	446.11
	ICER	10365	10635	7193	15609	4329	4566	2583	7362	-190	-294	-1283	659
<b>0.8</b>	hospitalisations prevented - elderly	8.55	9.64	5.91	14.31	41.19	43.15	25.42	65.99	169.94	171.83	106.92	248.58
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.49	0.77	0.37	1.26	6.28	5.85	3.27	8.91	49.76	50.69	38.95	64.17
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	570786	569314	501061	630870	399990	393966	249202	515747	-317605	-380458	-856303	26505
	Incremental QALYs	68.04	68.39	45.89	93.21	134.80	136.81	87.80	192.58	459.76	465.35	362.50	583.26
	ICER	8396	8629	5723	12824	2905	3086	1475	5336	-771	-819	-1834	62
<b>1</b>	hospitalisations prevented - elderly	10.68	12.05	7.38	17.89	51.48	53.94	31.78	82.49	212.43	214.78	133.65	310.73
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.62	0.96	0.47	1.57	7.85	7.31	4.09	11.14	62.20	63.37	48.68	80.22
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	535929	534360	457360	603919	323404	315175	139694	461722	-575767	-652855	-1240872	-149511
	Incremental QALYs	77.66	78.01	52.05	106.67	160.53	163.53	104.21	231.06	566.92	574.21	446.80	719.89
	ICER	6916	7116	4630	10713	1952	2081	734	3985	-11501	-11450	-2178.50	-288.62

**Table 2 – Cost-effectiveness output table HCW 20-29 years of age, no administration costs**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
<b>0</b>	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	29755	29724	28322	30995	29755	29724	28322	30995	29755	29724	28322	30995
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
	ICER	24229	24715	16552	36534	24229	24715	16552	36534	24229	24715	16552	36534
<b>0.2</b>	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	28303	28266	26547	29832	26475	26437	24086	28502	18692	18362	12663	23355
	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	17291	17694	12190	25647	11259	11626	7842	17122	3196	3240	1901	4840
<b>0.4</b>	hospitalisations prevented – elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	26853	26808	24736	28680	23243	23151	19630	26173	8041	6999	-3381	15924
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	13179	13502	9295	19574	6702	7008	4397	10741	744	704	-301	1836
<b>0.6</b>	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	25403	25350	22931	27538	20031	19864	15112	23892	-2582	-4362	-19421	8597
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	10428	10697	7236	15659	4361	4599	2609	7401	-179	-285	-1272	669
<b>0.8</b>	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	23949	23892	21111	26406	16831	16578	10570	21638	-13059	-15724	-35513	1241
	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
	ICER	8449	8681	5762	12890	2931	3113	1495	5379	-764	-812	-1827	69
<b>1</b>	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	22490	22434	19278	25284	13634	13291	6001	19382	-23955	-27086	-51609	-6130
	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
	ICER	6963	7162	4669	10778	1973	2103	747	4010	-1144	-1139	-2173	-281

Table 3 – Cost-effectiveness output table HCW 30-49 years of age, no administration costs

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	29642	29615	28168	30928	29642	29615	28168	30928	29642	29615	28168	30928
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
	ICER	24143	24625	16489	36410	24143	24625	16489	36410	24143	24625	16489	36410
0.2	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	28193	28157	26401	29765	26368	26328	23953	28423	18582	18253	12544	23269
	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	17221	17626	12148	25583	11215	11578	7787	17073	3177	3221	1878	4822
0.4	hospitalisations prevented - elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	26741	26699	24602	28604	23131	23042	19502	26098	7900	6890	-3492	15847
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	13133	13447	9258	19533	6673	6975	4375	10685	735	693	-308	1824
0.6	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	25299	25241	22781	27468	19920	19755	14986	23791	-2758	-4471	-19557	8502
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	10384	10651	7200	15609	4337	4574	2592	7369	-187	-292	-1280	661
0.8	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	23843	23783	20955	26332	16722	16469	10446	21532	-13211	-15833	-35661	1135
	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
	ICER	8411	8642	5736	12829	2910	3093	1483	5346	-770	-817	-1832	64
1	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	22387	22325	19131	25211	13532	13182	5867	19287	-23998	-27195	-51732	-6207
	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
	ICER	6928	7127	4641	10729	1957	2086	736	3987	-1148	-1144	-2176	-286

**Table 4 – Cost-effectiveness output table HCW 50-65 years of age, no administration costs**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	29404	29385	27814	30812	29404	29385	27814	30812	29404	29385	27814	30812
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
	ICER	23937	24436	16330	36174	23937	24436	16330	36174	23937	24436	16330	36174
0.2	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	27958	27928	26055	29635	26156	26099	23662	28283	18353	18023	12265	23114
	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	17086	17484	12031	25394	11118	11478	7724	16942	3141	3182	1831	4792
0.4	hospitalisations prevented - elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	26511	26470	24271	28472	22897	22813	19191	25932	7602	6661	-3785	15695
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	13019	13333	9160	19420	6611	6907	4325	10601	715	671	-334	1796
0.6	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



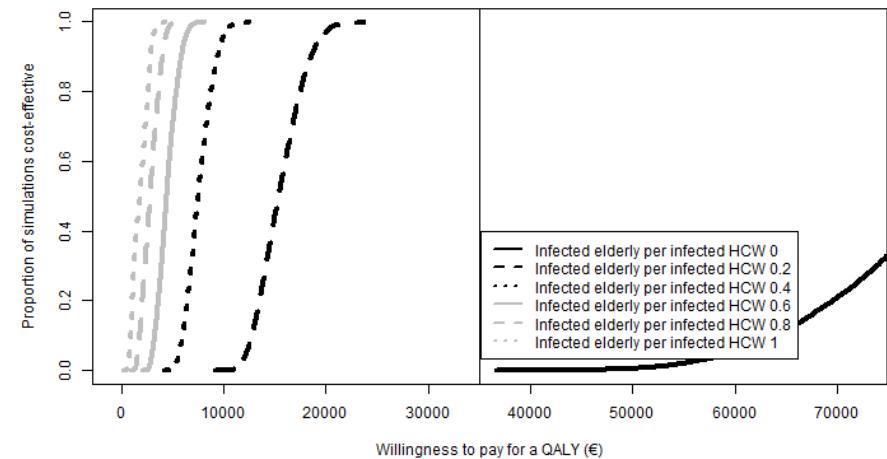
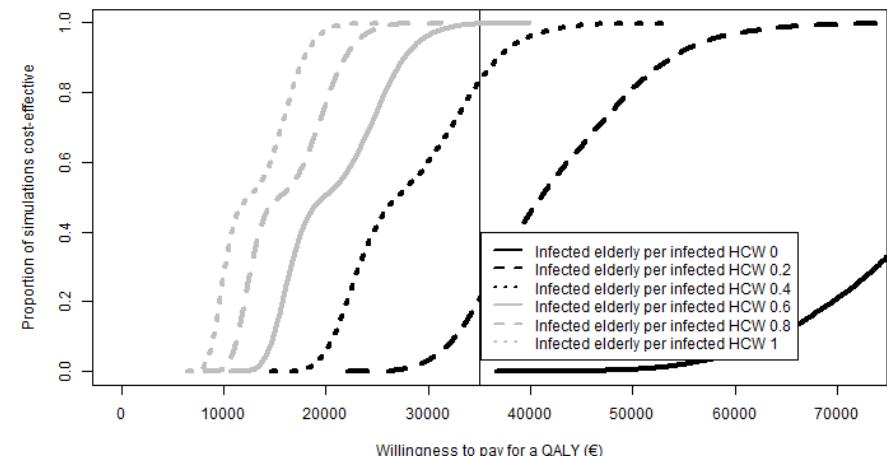
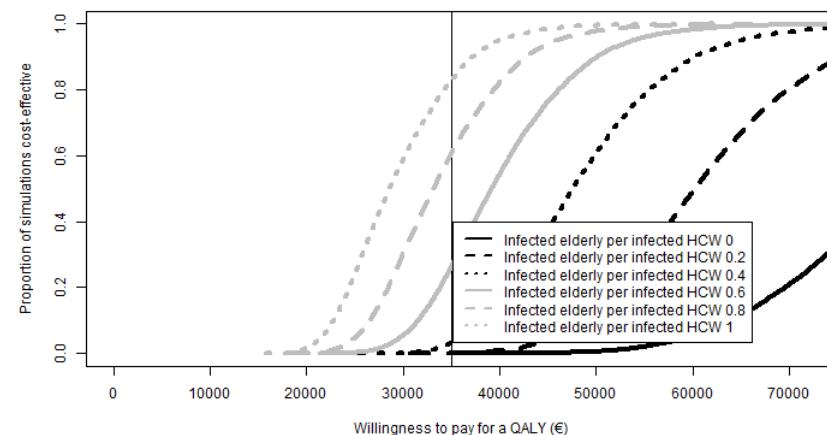
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	25057	25012	22471	27335	19693	19526	14691	23634	-3049	-4701	-19841	8305
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	10288	10555	7140	15517	4289	4522	2545	7326	-209	-308	-1300	646
0.8	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	23613	23554	20657	26180	16489	16240	10150	21362	-13586	-16063	-35920	937
	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
	ICER	8332	8560	5668	12749	2870	3051	1449	5291	-781	-830	-1844	54
1	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	22163	22096	18825	25047	13292	12953	5579	19119	-24088	-27425	-51986	-6425
	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
	ICER	6855	7055	4578	10639	1922	2051	711	3942	-1158	-1154	-2189	-294

## 5.2. HCW with marginal administration costs

### 5.2.1. HCW aged 20-29 years

The figure below shows the CEACs for varying the numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker. These figures show that vaccinating HCWs aged 20-29 years can be considered cost-effective if every HCW with a primary infection can be assumed to infect at least one patient every 1 to 5 seasons, depending on the age category of the patient. For patients aged 50-64 years, 0.8 secondary infections every season are needed to achieve cost-effectiveness at the median. For patients aged 65-74 years one secondary infection every two seasons is necessary. For patients over 75 years of age, one infection every 5 seasons would be sufficient to yield a relatively cost-effective result.

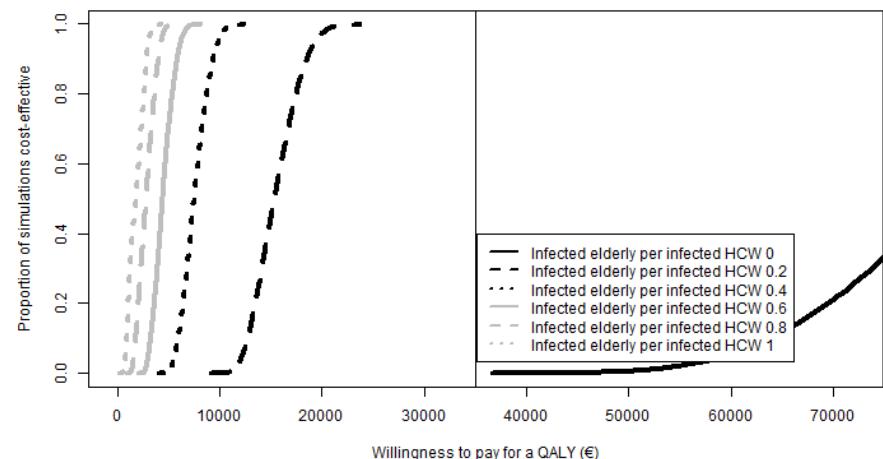
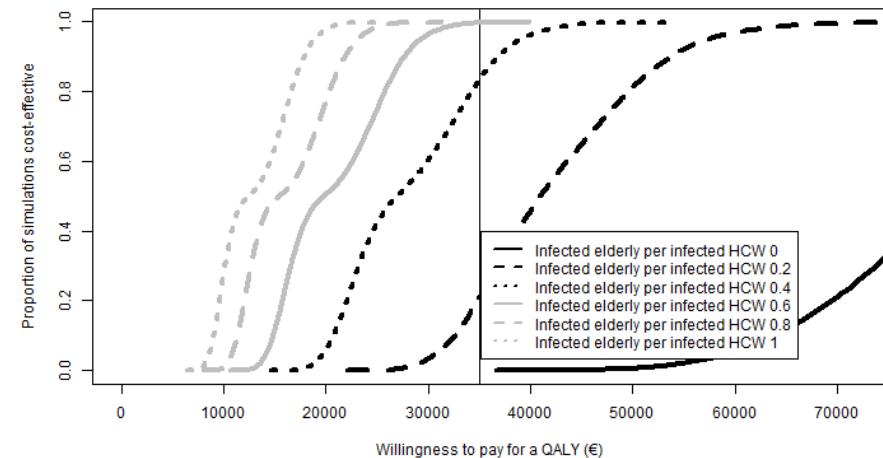
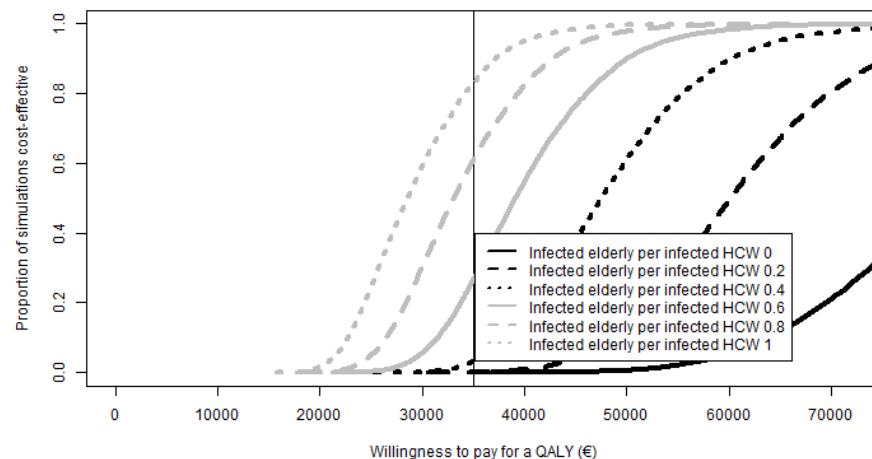
**Figure 4 – CEACs for vaccinating HCWs aged 20-29 years at €23.32 marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74 and 75+ years**



### 5.2.2. HCW aged 30-49 years

The figure below shows that vaccinating HCWs aged 30-49 years can be considered cost-effective if every HCW with a primary infection can be assumed to infect at least one patient every 1 to 5 seasons, depending on the age category of the patient. For patients of 50-64 years of age a secondary infection every season is needed to achieve a relatively cost-effective result. For patients aged 65-74 years, one secondary infection every two seasons is necessary to yield a cost-effective result, whereas for patients over 75 years of age, only one infection every 5 seasons would be sufficient.

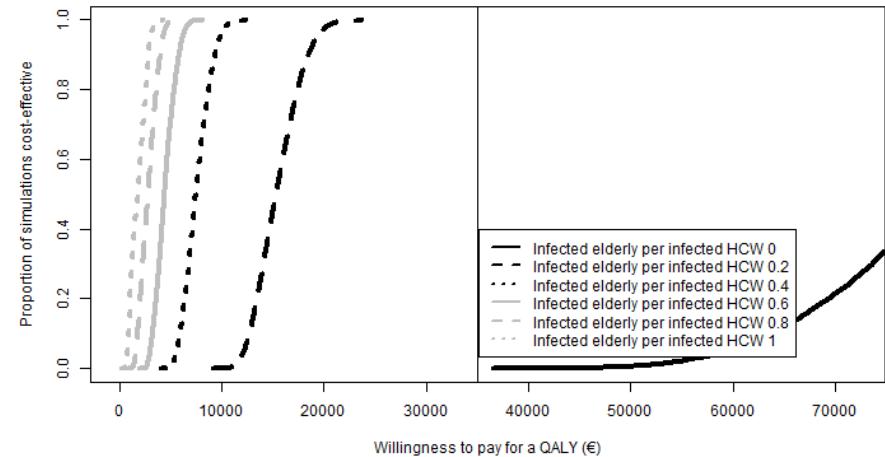
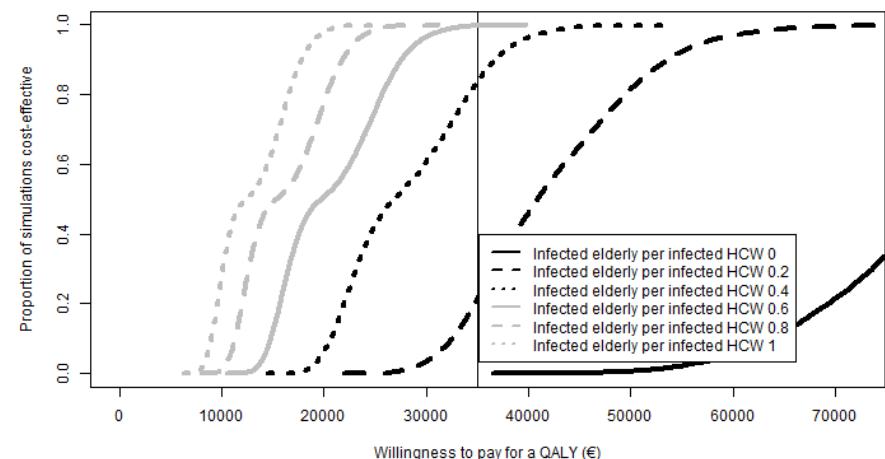
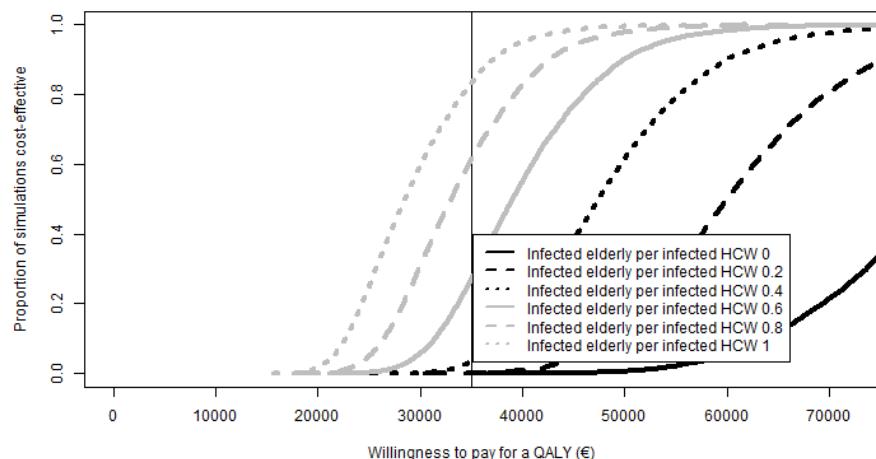
**Figure 5 – CEACs for vaccinating HCWs aged 30-49 years at €23.32 marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74 and 75+ years**



### 5.2.3. HCW aged 50-65 years

The figure below shows that vaccinating HCWs aged 50-65 years can be considered cost-effective if every HCW with a primary infection can be assumed to infect at least one patient every 1 to 5 seasons, depending on the age category of the patient. For patients of 50-64 years of age a secondary infection every season is needed to achieve cost-effectiveness. For patients aged 65-74 years one secondary infection every two seasons is sufficient. For patients over 75 years of age, only one infection every 5 seasons is sufficient.

**Figure 6 – CEACs for vaccinating HCWs aged 50-65 years at €23.32 marginal administration costs, assuming varying numbers of secondary infections in patient groups aged 50+ due to a primary infection in a health care worker; from top to bottom: secondary infections in adults aged 50-64, 65-74and 75+ years**



**Table 5 – Cost-effectiveness output table HCW 20-65 years of age, administration costs €23.32, size target group 239 740 active HCW assumed distributed as the general population**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2386896	2386351	2351213	2418190	2386896	2386351	2351213	2418190	2386896	2386351	2351213	2418190
	Incremental QALYs	29.43	29.93	19.79	42.64	29.43	29.93	19.79	42.64	29.43	29.93	19.79	42.64
	ICER	81085	82709	55735	121191	81085	82709	55735	121191	81085	82709	55735	121191
0.2	hospitalisations prevented - elderly	2.14	2.41	1.48	3.58	10.30	10.79	6.36	16.50	42.49	42.96	26.73	62.15
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.12	0.19	0.09	0.31	1.57	1.46	0.82	2.23	12.44	12.67	9.74	16.04
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2352152	2351397	2308743	2390124	2308589	2307560	2250594	2358039	2121524	2113954	1976737	2234450
	Incremental QALYs	39.10	39.55	26.88	54.14	56.43	56.65	37.95	77.77	137.54	138.79	108.56	173.72
	ICER	60098	61339	43126	87715	40951	42276	29439	61059	15358	15504	11787	20028
0.4	hospitalisations prevented - elderly	4.27	4.82	2.95	7.16	20.59	21.58	12.71	33.00	84.97	85.91	53.46	124.29
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.25	0.38	0.19	0.63	3.14	2.93	1.63	4.46	24.88	25.35	19.47	32.09
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2317549	2316443	2265798	2362596	2230916	2228769	2143531	2302117	1865492	1841557	1592351	2056555
	Incremental QALYs	48.81	49.16	33.47	66.82	83.20	83.37	54.69	115.85	244.94	247.64	193.52	309.52
	ICER	47467	48607	34357	69779	26843	28088	18994	41198	7477	7587	5376	10232

<b>0.6</b>	hospitalisations prevented - elderly	6.41	7.23	4.43	10.74	30.89	32.36	19.07	49.50	127.46	128.87	80.19	186.44
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.37	0.58	0.28	0.94	4.71	4.39	2.45	6.68	37.32	38.02	29.21	48.13
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2282694	2281489	2222177	2335127	2153990	2149979	2035197	2247172	1609739	1569160	1207378	1880305
	Incremental QALYs	58.44	58.78	39.74	79.95	108.88	110.09	71.30	154.06	352.10	356.50	278.35	446.11
	ICER	39075	40096	28328	57715	19726	20703	13643	30661	4429	4500	2850	6460
<b>0.8</b>	hospitalisations prevented - elderly	8.55	9.64	5.91	14.31	41.19	43.15	25.42	65.99	169.94	171.83	106.92	248.58
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.49	0.77	0.37	1.26	6.28	5.85	3.27	8.91	49.76	50.69	38.95	64.17
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2248008	2246535	2178283	2308091	2077212	2071188	1926424	2192969	1359615	1296762	820918	1703727
	Incremental QALYs	68.04	68.39	45.89	93.21	134.80	136.81	87.80	192.58	459.76	465.35	362.50	583.26
	ICER	33062	33988	23861	49239	15335	16152	10424	24182	2814	2855	1513	4477
<b>1</b>	hospitalisations prevented - elderly	10.68	12.05	7.38	17.89	51.48	53.94	31.78	82.49	212.43	214.78	133.65	310.73
	hospitalisations prevented - HCW	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75	3.47	4.05	1.24	7.75
	Deaths prevented - elderly	0.62	0.96	0.47	1.57	7.85	7.31	4.09	11.14	62.20	63.37	48.68	80.22
	Deaths prevented - HCW	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43	0.07	0.10	0.00	0.43
	Incremental direct costs	2213150	2211581	2134582	2281140	2000626	1992397	1816915	2138943	1101454	1024365	436348	1527710
	Incremental QALYs	77.66	78.01	52.05	106.67	160.53	163.53	104.21	231.06	566.92	574.21	446.80	719.89
	ICER	28528	29384	20487	42806	12387	13061	8234	19734	1823	1833	670	3249

**Table 6 – Cost-effectiveness output table HCW 20-29 years of age, with administration costs €23.32**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	99716	99684	98283	100956	99716	99684	98283	100956	99716	99684	98283	100956
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
0.2	ICER	81211	82832	55840	121286	81211	82832	55840	121286	81211	82832	55840	121286
	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	98264	98226	96508	99792	96436	96398	94046	98462	88652	88322	82623	93316
0.4	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	60168	61432	43267	87874	41001	42340	29476	61173	15382	15530	11808	20046
	hospitalisations prevented - elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
0.6	Incremental direct costs	96814	96768	94696	98641	93204	93111	89590	96133	78002	76960	66579	85884
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	47535	48681	34432	69818	26884	28132	19030	41237	7493	7602	5384	10247
0.6	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	95363	95310	92892	97499	89991	89825	85073	93852	67378	65598	50538	78557
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	39102	40158	28378	57763	19754	20736	13675	30699	4440	4510	2862	6472
0.8	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
0.8	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
0.8	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
0.8	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
0.8	Incremental direct costs	93910	93852	91071	96366	86791	86538	80531	91599	56900	54235	34446	71201
0.8	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
0.8	ICER	33107	34042	23897	49309	15356	16179	10444	24218	2820	2863	1524	4480
1	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
1	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
1	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
1	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
1	Incremental direct costs	92450	92394	89239	95244	83594	83252	75962	89343	46004	42873	18350	63830
1	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
1	ICER	28575	29431	20519	42863	12407	13084	8252	19754	1829	1839	675	3252

**Table 7 – Cost-effectiveness output table HCW 30-49 years of age, with administration costs €23.32**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	99603	99575	98129	100888	99603	99575	98129	100888	99603	99575	98129	100888
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
0.2	ICER	81105	82742	55772	121079	81105	82742	55772	121079	81105	82742	55772	121079
	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	98153	98117	96361	99726	96328	96289	93913	98383	88542	88213	82505	93230
0.4	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	60110	61364	43214	87802	40938	42292	29438	61087	15365	15511	11790	20024
	hospitalisations prevented - elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
0.6	Incremental direct costs	96702	96659	94562	98565	93092	93002	89463	96058	77861	76851	66468	85807
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	47476	48626	34377	69772	26855	28099	19005	41211	7482	7591	5377	10233
0.6	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	95259	95201	92741	97429	89881	89716	84946	93751	67202	65488	50402	78462
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	39063	40113	28343	57721	19731	20711	13655	30669	4433	4502	2854	6465
0.8	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
0.8	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
0.8	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
0.8	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
0.8	Incremental direct costs	93803	93743	90916	96292	86682	86429	80406	91492	56748	54126	34299	71095
0.8	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
0.8	ICER	33071	34002	23865	49278	15339	16159	10430	24184	2815	2857	1516	4476
1	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
1	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
1	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
1	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
1	Incremental direct costs	92348	92285	89091	95172	83492	83142	75828	89248	45962	42764	18228	63752
1	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
1	ICER	28537	29396	20492	42848	12391	13066	8236	19738	1824	1835	671	3249

**Table 8 – Cost-effectiveness output table HCW 50-65 years of age, with administration costs €23.32**

Secondary infections	Output element	Elderly 50-64 years of age				Elderly 65-74 years of age				Elderly over 75 years of age			
		median	mean	2.5%	97.5%	median	mean	2.5%	97.5%	median	mean	2.5%	97.5%
0	hospitalisations prevented - elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented -elderly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	99364	99346	97775	100773	99364	99346	97775	100773	99364	99346	97775	100773
	Incremental QALYs	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78	1.23	1.25	0.83	1.78
	ICER	80944	82552	55618	120875	80944	82552	55618	120875	80944	82552	55618	120875
0.2	hospitalisations prevented - elderly	0.09	0.10	0.06	0.15	0.43	0.45	0.27	0.69	1.77	1.79	1.11	2.59
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented -elderly	0.01	0.01	0.00	0.01	0.07	0.06	0.03	0.09	0.52	0.53	0.41	0.67
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	97918	97888	96015	99595	96116	96059	93622	98243	88313	87983	82225	93074
	Incremental QALYs	1.63	1.65	1.12	2.26	2.35	2.36	1.58	3.25	5.74	5.79	4.53	7.24
	ICER	59981	61222	43058	87631	40855	42192	29369	60968	15321	15471	11748	19986
0.4	hospitalisations prevented - elderly	0.18	0.20	0.12	0.30	0.86	0.90	0.53	1.38	3.54	3.58	2.23	5.18
	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented -elderly	0.01	0.02	0.01	0.03	0.13	0.12	0.07	0.19	1.04	1.06	0.81	1.34
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	96471	96430	94231	98432	92857	92773	89151	95892	77562	76621	66175	85655
	Incremental QALYs	2.04	2.05	1.40	2.79	3.47	3.48	2.28	4.83	10.22	10.33	8.07	12.90
	ICER	47372	48512	34289	69621	26810	28030	18953	41136	7457	7568	5359	10206
0.6	hospitalisations prevented - elderly	0.27	0.30	0.18	0.45	1.29	1.35	0.80	2.06	5.32	5.38	3.34	7.78



	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
	Deaths prevented - elderly	0.02	0.02	0.01	0.04	0.20	0.18	0.10	0.28	1.56	1.59	1.22	2.01
	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
	Incremental direct costs	95017	94972	92431	97295	89653	89486	84651	93594	66911	65259	50119	78265
	Incremental QALYs	2.44	2.45	1.66	3.33	4.54	4.59	2.97	6.42	14.68	14.87	11.61	18.60
	ICER	38967	40017	28265	57531	19686	20658	13619	30582	4416	4487	2839	6447
0.8	hospitalisations prevented - elderly	0.36	0.40	0.25	0.60	1.72	1.80	1.06	2.75	7.09	7.17	4.46	10.37
0.8	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
0.8	Deaths prevented - elderly	0.02	0.03	0.02	0.05	0.26	0.24	0.14	0.37	2.08	2.11	1.62	2.68
0.8	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
0.8	Incremental direct costs	93573	93514	90617	96140	86449	86200	80110	91322	56374	53897	34040	70897
0.8	Incremental QALYs	2.84	2.85	1.91	3.89	5.62	5.71	3.66	8.03	19.18	19.41	15.12	24.33
0.8	ICER	32991	33920	23788	49165	15292	16116	10397	24132	2804	2845	1505	4469
1	hospitalisations prevented - elderly	0.45	0.50	0.31	0.75	2.15	2.25	1.33	3.44	8.86	8.96	5.57	12.96
1	hospitalisations prevented - HCW	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32	0.15	0.17	0.05	0.32
1	Deaths prevented - elderly	0.03	0.04	0.02	0.07	0.33	0.31	0.17	0.46	2.59	2.64	2.03	3.35
1	Deaths prevented - HCW	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02
1	Incremental direct costs	92123	92056	88785	95007	83252	82913	75539	89079	45872	42535	17974	63535
1	Incremental QALYs	3.24	3.25	2.17	4.45	6.70	6.82	4.35	9.64	23.64	23.95	18.64	30.03
1	ICER	28457	29324	20444	42782	12354	13031	8209	19699	1815	1825	661	3241

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